

Writing SWAT Precipitation

Posted by Nicholas Hayden - 2007/11/28 21:16

I am very new to using AGWA, and am having a problem setting up the precipitation files for SWAT. I have created both a point file for gages near my study area and a .dbf file populated with data downloaded from the Western Regional Center. I select a gage from the point that shows up in the Selected Gages box as BGS, and select my unweighted precip file that has the proper column of BGS, along with YEAR and DATE. However, when I try to run, I get the "Data for the selected gage could not be found in the unweighted precipitation file."

Are there any cell format requirements for the precipitation file that I might be missing, or is there something else I could be doing wrong.

Thanks,
Nick

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Re:Writing SWAT Precipitation

Posted by Nicholas Hayden - 2007/11/28 22:27

Figured it out, I didn't have the letter G starting the gage name in the .dbf.

If anyone has tried compiling daily precip data for the Sierra Nevada and Coastal ranges of California, I'd love to get some suggestions. So far I've just used the average (over 30 years) daily precipitation for the gage nearest my test site and run the model for a year, but I'd like to go beyond that.

-Nick

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Re:Writing SWAT Precipitation

Posted by elsadek - 2008/04/23 04:37

I have the same problem, although I put G before the station ID ,but it still giving me that message , also I have another problem that SWAT found that the simulation years is 0 and I tried to build these files as in the tutorial

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Re:Writing SWAT Precipitation

Posted by isburns - 2008/04/23 17:18

There is a bug in the calculation of how many years of rainfall data are available in the SWAT Input Files form which is why you're getting 0 simulation years. It just calculates one less than is actually available.

To work around the problem, just duplicate one of the years and add it to the end of the precip file and you'll see the original number of years that were supposed to be there.

Shea

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Re:Writing SWAT Precipitation

Posted by isburns - 2008/04/23 17:20

I've learned of two sites since the posting of the manual that have data that is fairly easy to obtain and get into the format accepted by AGWA. The first site is free, but I don't believe the second is.

The first, <http://www.daymet.org/>, is probably the easiest to use because it requires the least amount of processing (convert to dbf, delete unneeded columns, and convert cm to mm) to get into an acceptable format for AGWA. On the other hand, this site is interpolating the data based on a lat/long coordinate that you provide.

The second, <http://hurricane.ncdc.noaa.gov/CDO/cdo>, is a little harder to navigate and I believe requires a little more manipulation to get into an acceptable format. The upside of this site is that you know exactly where the data you obtain is coming from.

With both sites, you'll still need to create a rain gage point theme based on the lat/long coordinate you provide or of the actual station used.

Shea

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Re:Writing SWAT Precipitation

Posted by vianna - 2008/06/17 14:46

Dear Shea Burns,

I'm trying to write swat precipitation through our own rain gage in Santa Catarina, Brazil. I write the unweighted precipitation file as recommended in the help, and formatted it as the sp60_73.dbf, but the gage code is not text formatted, as "G####", but a number "#####". Two fields were created in the point gage shpfile, one short integer and other text, to record the gage code. When I select one ou two gages, from any of the code fields, the AGWA2 accept the unweighted precipitation file, but if the query has more than 3 records, the message "None of the selected gages could be found in the unweighted precipitation file, please select different rain gages or another precipitation file". I have 26 gages in the shapefile, and all the codes are exactly equal to the unweighted precipitation file. I've tried all query and formats but the problem persists. The system just accept the unweighted precipitation file whith only 2 selected gages. More than this, the error occurs.

I thank for your help.

Luiz Vianna

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Re:Writing SWAT Precipitation

Posted by isburns - 2008/06/29 05:37

Hi Luiz,

I'm not sure I'm following completely, but a G is required in front of the gage IDs in the unweighted precipitation file. So if your rain gage point theme has gage IDs 55011, 55012, and 55018, then your unweighted precipitation file needs fields G55011, G55012, and G55018.

There is also another issue with the gage IDs that isn't explicit. IDs longer than 5 digits/characters do not work, so your IDs in the unweighted precipitation file need to be 5 digits/characters or less.

Does that help?

Shea

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Re:Writing SWAT Precipitation

Posted by vianna - 2008/08/05 13:40

Dear Shea,

The database is now formatted as the system need. The gages points ID's are G1, G2, G3... and the rain table field headers are YEAR, DAY, G1, G2, G3..... But the problem still happen ("None of the selected gages could be found in the unweighted precipitation file, please select different rain gages or another precipitation file"). The rain table is stored in Oracle (Were it is updated every hour), but I exported it to Geodatabase and dbf table, but doesn't work too. The decimal caracter in Brazil is ",". The AGWA2 works with it? Can it be the problem? Is any other problem that can be happen?

Thanks.

Luiz Vianna

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Re:Writing SWAT Precipitation

Posted by isburns - 2008/08/25 22:20

Hi Luiz,

The gage IDs in the rain gage point theme should not have the G in front, only the gage IDs in the unweighted precipitation file should. So, your rain gage point theme should have gage IDs 1, 2, 3, etc. Your unweighted precipitation file is correct with YEAR, DAY, G1, G2, G3.

The decimal character being "," may cause problems elsewhere, but shouldn't cause a problem here. If you've successfully gotten through everything up to writing the precipitation files, you probably won't

encounter problems.

Shea

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